

Commissioner of Patents
Serial No. 10/707,761
Response Date April 11, 2005
Reply to Office Action dated December 14, 2004
Page 2

AMENDMENTS TO THE SPECIFICATION

Please amend paragraphs [0025 - 0027] as set forth below. Additions to the specification are shown in underlined and bold text and deletions from the specification are shown in strike-through or bracketed and bold text.

[0025] Figure 1 is a schematic diagram illustrating various process equipment that may be useful

in carrying out a method of making gypsum wallboard according to the invention; ~~and~~

[0026] Figure 2 is a schematic diagram illustrating in more detail features of the equipment and method illustrated in Figure 1 ~~[[.]]; and~~

[0027] **Figure 3 is a schematic diagram illustrating in more detail features of the equipment and method illustrated in Figures 1 and 2.**

While the invention is susceptible of embodiments in various forms, there are illustrated in the drawing figures and will hereafter be described specific embodiments of the invention, with the understanding that the disclosure is intended to be illustrative, and is not intended to limit the invention to the specific embodiments described and illustrated herein.

Commissioner of Patents
Serial No. 10/707,761
Response Date April 11, 2005
Reply to Office Action dated December 14, 2004
Page 3

Please amend the paragraph [0031] as set forth below. Additions to the specification are shown in underlined and bold text and deletions from the specification are shown in strike-through or bracketed and bold text.

[0031] Figure 2 and Figure 3 illustrate[[s]] a more detailed view of the process 10. Specifically, the mixer 12 is shown in Figures 2 and 3 connected at a mixer discharge end 36 to die 14. The die 14 includes a die inlet 38, a die exit 40, and a die manifold 42 disposed between the inlet 38 and exit 40. The die 14 preferably includes a plurality of conduits, such as for example, one or more conduits 44, for introducing various additives into the discharging slurry. The slurry is discharged directly onto the conveyor belt 16 which carries the deposited slurry to downstream processing equipment (described and shown in Figure 1) where preparation of the wallboard product can be completed.

Commissioner of Patents
Serial No. 10/707,761
Response Date April 11, 2005
Reply to Office Action dated December 14, 2004
Page 4

Please amend paragraph [0042] as set forth below. Additions to the specification are shown in underlined and bold text.

[0042] The gypsum slurry is soft-extruded through a die onto a substantially flat, smooth, moving surface, such as a Teflon® material-covered conveyor belt. A preferred die 14 is shown in Figure 2 and Figure 3 and includes a die inlet 38 connected to a discharge end of the mixer 12, a die manifold 42, and a die exit 40. Inside the die manifold 42, the slurry occupies and takes on the shape of the manifold 42 and, therefore, obtains its final cross-sectional shape before exiting the die 14 through the die exit 40. Desirably, the die 14 and, more specifically, the die manifold 42 reshape the slurry exiting the mixer 12 from a round cross-sectional area to the thickness and width of the finished product.

Commissioner of Patents
Serial No. 10/707,761
Response Date April 11, 2005
Reply to Office Action dated December 14, 2004
Page 5

Please amend paragraph [0044] as set forth below. Additions to the specification are shown in underlined and bold text and deletions from the specification are shown in strike-through or bracketed and bold text.

[0044] The die specified for use in accordance with a preferred embodiment of the invention deposits a gypsum slurry in a manner such that the slurry exiting the die has cross-sectional dimensions substantially identical to that of the hardened wallboard core. This is accomplished by utilizing a die having a die exit (or opening), through which the slurry discharges onto the moving conveyor belt, having cross-sectional dimensions substantially identical to that of the hardened wallboard core. For example, a hardened wallboard core (and the die exit both) can be about ~~[[1/4]]~~ 1/4 to about one inch thick (high) (about .64 to about 2.54 centimeters (cm)), which includes specific board core thickness of about 5/16, ~~[[3/s]]~~ 3/8, ~~[[1/2]]~~ 1/2, ~~[[5/a]]~~ 5/8, and about~~[[1/4]]~~ 1/4 inches (about 0.79, 0.95, 1.27, 1.59, and about 1.90 cm, respectively). Additionally, a hardened wallboard core (and the die exit both) can be about 4 to about 4.5 feet (about 1.22 to about 1.38 meters) wide. Thus, the die may have a width to height ratio of about 48:1 to about 216:1. In contrast, discharge boots used in conventional gypsum wallboard manufacturing processes do not possess cross-sectional dimensions in this range.